

In the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method of compensating for differences between an applied DC link voltage and a predetermined DC link voltage in an electrical machine ~~having~~ comprising a rotor, at least one phase winding and a controller ~~arranged~~ configured to ~~energise~~ energize the phase winding in dependence on ~~[[the]]~~ an angular position of the rotor, the method comprising: ~~the steps of~~
measuring the applied DC link voltage and
applying a predetermined correction to the angular position of ~~energisation~~ energization of the phase winding in dependence on the value of the applied DC link voltage.
2. (Currently Amended) A method as claimed in claim 1, in which the controller includes a memory ~~arranged to store~~ storing a predetermined relationship between the applied DC link voltage and the correction to the angular position.
3. (Original) A method as claimed in claim 1 or 2, in which the applied DC link voltage is measured periodically.
4. (Currently Amended) A method as claimed in ~~any preceding~~ claim 1 or 2, in which the applied DC link voltage is measured when the machine is started.
5. (Currently Amended) A method as claimed in ~~any preceding~~ claim 1 or 2, further comprising ~~the step of~~ measuring the applied DC link voltage when the machine is connected to a power supply but before the machine is switched on, ~~the method further comprising the step of~~ and applying a predetermined correction to the angular position of ~~energisation~~ energization of the phase winding on starting the machine, in dependence on the value of the measured DC link voltage.

6. (Currently Amended) A method as claimed in ~~any preceding~~ claim 1 or 2, further comprising ~~the step of~~ deriving an average value for the applied DC link voltage at the ~~or each~~ measurement.

7. (Original) A method as claimed in claim 6, in which the step of deriving the average value includes applying a filter to the applied DC link voltage.

8. (Currently Amended) A method of controlling an electrical machine, including the method of compensating for differences between the applied DC link voltage and a predetermined DC link voltage as claimed in ~~any preceding~~ claim 1 or 2.

9. (Currently Amended) A controller for an electrical machine comprising a rotor and at least one phase winding, the controller being ~~arranged~~ configured to ~~energise~~ energize the phase winding in dependence on ~~[[the]]~~ an angular position of the rotor, ~~the controller further being arranged and~~ to apply, on application of a DC link voltage, a predetermined correction to the angular position of ~~energisation~~ energization of the phase winding in dependence on the value of the applied DC link voltage.

10. (Currently Amended) A controller as claimed in claim 9, further comprising a memory ~~arranged to store~~ storing a predetermined relationship between the applied DC link voltage and the correction to the angular position.

11. (Currently Amended) A controller ~~machine~~ as claimed in claim 10, in which the memory further ~~includes~~ comprises a predetermined advance angle map representing the ~~energisation~~ energization of the phase winding with respect to the angular position of the rotor over a range of rotor speeds

12. (Currently Amended) A controller as claimed in claim 11, in which the memory further comprises an angle correction factor to be applied to a predetermined portion of the predetermined advance angle map, which correction factor relates to the difference between the measured input power and a predetermined power.

13. (Currently Amended) An electrical machine incorporating a controller as claimed in ~~claim~~ any one of claims 9 to 12.

14. (Original) An electrical machine as claimed in claim 13, in the form of a switched reluctance motor.

15. (Currently Amended) A cleaning appliance incorporating an electrical machine as claimed in claim 13 ~~or~~ 14.

16-17. (Canceled)

18. (New) A method as claimed in claim 5, further comprising deriving an average value for the applied DC link voltage at the measurement.

19. (New) A method of controlling an electrical machine, including the method of compensating for differences between the applied DC link voltage and a predetermined DC link voltage as claimed in claim 5.

20. (New) A cleaning appliance comprising the switched reluctance motor of claim 14.